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AMERICAN DYESTUFF REPORTER

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IN THIS ISSUE

The Biography of a Bill
Some More or Less Idle Thoughts on the Miraculous Passage of the Penrose Dye Resolution

The Coloring of Pulp and Paper
By OTTO KRESS
(Continued from last week's issue)

Germans Not Yet Ready, but Hopeful

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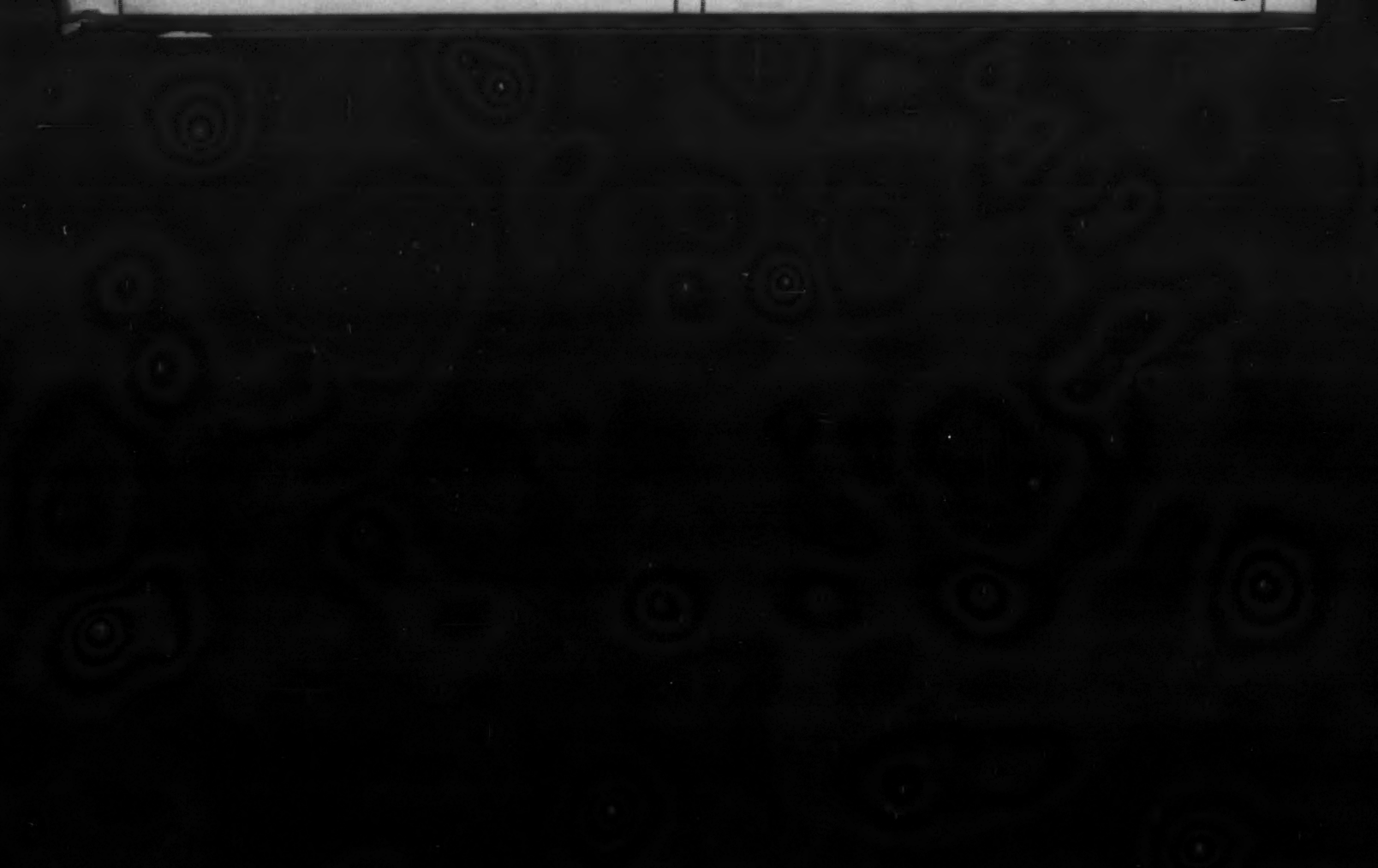

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AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

"Circulated Everywhere Dyestuffs are Used"

Vol. 5 New York, December 1, 1919 No. 22

THE BIOGRAPHY OF A BILL

Senatorial Lack of Information and Vagueness in the Public Press Combined to Make Passage of the Penrose Measure Amazing—What It Really Consists of

LAST week this publication printed as its principal feature an article dealing in a general way with the effects of the so-called Penrose Dye Resolution upon the trade at large and particularly upon the importers of dyes, and felicitating dye manufacturers upon its successful passage after all hope of action prior to adjournment seemed dead. Those who had been following—or trying to follow—the situation closely through the medium of the daily press, if their imaginations are inclined to be the least bit flighty or skittish, may possibly have read something of a double meaning into those lines which proclaimed the industry fortunate in seeing the measure safely passed.

To our way of thinking, the industry was not only lucky *in* having the resolution passed but was lucky *to* have it passed—at all. And when we speak thusly we are not referring to the narrow margin by which its official consideration beat out the motion to adjourn. Nor are we referring to the machinations of its enemies—who showed themselves to be pretty good fellows and entirely open to conviction, after all.

No, the wonder is not that it succeeded in eluding the above-mentioned shoals in the political sea which it was attempting to navigate. An analysis of the proceedings attending its triumphant entry into the Citadel of the Senatorial Survivors shows that the greater part of the worthy gentlemen in whose hands its fate rested were exceedingly well-intentioned and anxious to do the proper thing, whichever it might be, and that the remaining minority, who might otherwise have argued long and eloquently against it, were more or less willing to "let 'er ride," as the saying goes, in view of the fact that the measure was only a temporary affair and that they will have plenty of time to assail its permanent

counterpart, the licensing feature of the Longworth bill, after the Peace Treaty is ratified, or strangled, or—or something. The real marvel tucked away in the Congressional Thanksgiving gift to the industry lies in the fact that the resolution was passed not in spite of opposition or shortness of time, but in spite of the indescribably naive and superlatively all-pervading vagueness, the superb Senatorial somnolence, the colossally indifferent indefiniteness of concept as to its real intents, purposes and phraseology, which prevailed.

Gosh! we don't mean to get all excited, n'everything, but what we are trying to convey is that many of the Senators who gravely voted for, against or in back of the resolution didn't really just know what it was all about, but merely jumped into the argument because the Parliamentary rules made it a free-for-all instead of a private grudge fight.

Does this seem a trifle extreme? Then here is a sample:

Senator Dial—"Mr. President, the other evening I objected to the consideration of the joint resolution which was before the Senate in reference to this matter. The reason I did so was because of a telegram which I received and which reads as follows:

" 'Grateful for your telegram. Very important for cotton-mill industry that foreign fast color dyes are admitted without further delay or hindrance. One manufacturer has million and half dollars' shirting cloth requiring these dyes; unable to deliver without them; meanwhile many million dollars of these shirtings have been recently bought in England for importation to this country. Our print works has many thousand pieces held up for lack of fast colors. Will certainly lose its export trade in shirtings unless permitted to secure dyes available in foreign countries.'

"Mr. President, I have no objection to the resolution in the shape in which it is now presented, but I do want to vote to allow dyes to be imported into this country. I have had the matter up with the War Trade Board, and they have promised that they would allow such action. . . . Personally I wish this board could go out of existence and let the country get back to normal. I am perfectly willing to protect American industry to a reasonable extent, but if we cannot manufacture dyes, then we should be allowed to import them as soon as possible.

"Furthermore, I do not object to German importation, as some others do. If we expect Germany to get back on her feet it will be necessary to begin to trade with her, and I want either that dyes be manufactured in this country or to have them imported right away in order to help the manufacturers of this country. Dyestuffs enter into the cost of clothing, and it is time that the price of clothing should come down. . . ."

In his statements regarding earlier objections to the resolution Mr. Dial was referring to the form in which the measure was originally presented to the Senate, in which form it was also condemned by the REPORTER. We believe in being fair to the Senator and giving both sides of his argument. But when he speaks of the cost of dyes as affecting the cost to the ultimate consumer of clothing—or even shirtings—to any appreciable extent, and when he preaches the fostering of Germany's trade at the expense of the safety of this country in the event of another war (which would be the effect of strangling the American dye industry) he shows a complete lack of the proper information on the subject necessary to make his opinions carry weight, either for or against.

Numerous other examples might be given, some more and some less striking. It was not at all that Senator Dial's heart was not in the right place, but that the resolution was at the mercy of a group of men who, through no fault of their own, goodness knows, had not the time to have *all* angles of the situation explained to them.

It was much the same in the case of the dye consumers, with regard to the

Penrose resolution. We believe that many such telegrams and letters as the one produced by Senator Dial were the direct result of a lack of knowledge of just what the measure was and how worded. Throughout the discussion the daily press was sometimes anywhere from two to three days behind in its comment, and, owing to the many changes which this bill underwent and the rapidity with which it was juggled back and forth from House to Senate, a condition of hopeless confusion prevailed in the minds of those who were trying to find out what Congress was doing with it.

We will wager that there are still many who have no clear idea of the progress of the resolution and what happened to it in its final form. It is a matter of common knowledge in the trade that "the Penrose dye resolution" was passed, but—well, for purposes of records, let us ascertain exactly what *did* happen.

It was Monday, November 10, when Senator Penrose, as chairman of the Senate Finance Committee, first introduced into that body the measure. All through the war, and even up to the present and until the Peace Treaty is finally disposed of, the trading-with-the-enemy act of October 6, 1917, has taken care of and will take care of the dye industry through a licensing power exercised by the War Trade Board. The Penrose resolution proposed to continue that power of licensing imports of dyestuffs until January 15, by which time it was hoped that the Longworth bill, carrying a similar licensing provision, which was, however, to be administered through the Tariff Commission, could finally be accepted or rejected once and for all. *But*, the original Penrose resolution went farther than that, and was worded so as not only to prohibit anyone from importing coal-tar products without a license but to prohibit utterly the grant-

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Ortho-Cresol	Melting Point 28° C.
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ing of any licenses for the importing of coal-tar products.

Manifestly, this would have been absurd. However, when Mr. Penrose the next day sought to bring the bill before the Senate it was referred back to the committee on the objection of Senator Hitchcock, who declared that it had not received the attention of the full committee.

In committee, then, on November 12, that part prohibiting the granting of licenses was struck out, and on November 13 it was again brought before the Senate. Then the real fun began, for the so-called Simmons amendment to the resolution gave to the War Trade Board the right to exercise its discretion in the granting of licenses, depending on whether or not the needed dye was being made in commercial quantities in this country, while a separate committee amendment calmly reversed the Simmons amendment, taking away from the Board any discretion to grant or withhold. This was the session which ended in a wrangle,

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during which neither amendment had a chance to be presented—which may have been just as well!

On November 14 there was no regular session of the Senate owing to the funeral ceremony for the late Senator Martin, but in committee the resolution was apparently re-amended so as to cast it in a different and somewhat better form; i. e., that there should be no importations without licenses, and no licenses granted for the importation of colors made here in sufficient quantities to supply the domestic trade. This was substantially the Simmons amendment giving to the Board discretionary powers.

Neither on this day nor on November 15 and 16 (the last-mentioned date being a Sunday) did the resolution come up, but some of the daily papers were, on those days, still speaking of it as "an embargo which would prevent all foreign importations of dyes" and recounting other interesting but inaccurate stories of its having been laid aside or having been definitely sidetracked by the adoption of the cloture rule.

Monday, November 17, however, saw its presentation in the House by Representative Green, in the exact form in which it was finally adopted by both House and Senate on Tuesday, November 18. In the Senate the following brief but highly illuminating remarks of Mr. Smoot are worthy of note: "Mr. President, all I desire to say is that I shall, if I can get an opportunity, vote 'nay' upon this joint resolution. I shall not vote for a license system, even though I know that it is necessary to protect the dyestuff industry."

Mr. Penrose's principal remarks, upon presenting the measure, were: "Mr. President, I only want to say this: This joint resolution is identical, word for word, with the joint resolution which has been reported unanimously from the Committee of Finance of the Senate and to which every Senator has agreed. It simply gives two months' protection—whether adequate

(*Concluded on page* 12.)

One Branch of a Giant Industry

TEXTILES comprise fabric and color. The fabric is right when the color is right. They stand or fall together. This is why the dyestuff producer must consider his work as a factor in a large industry.

The textile industry is a great industry. Its annual output is valued at more than one billion dollars. But it is singularly dependent upon the dyestuff producer. Fabric without color is unthinkable.

The National Aniline and Chemical Company, Inc., recognizes this relation to the textile consumer. It is here to serve the textile industry. It is dependent upon that industry for encouragement and for existence. If it does not serve that industry adequately it will have no reason for existence.

The production of dyestuffs is a share in the work of a giant industry.

National Aniline & Chemical Company

INCORPORATED

21 Burling Slip, New York

Works: Buffalo Brooklyn Marcus Hook

AMERICAN DYESTUFF REPORTER

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Pointed solely toward the welfare and growth of the American Dyestuff Industry. Unbiased contributions appreciated.

A. P. HOWES, President
LAURANCE T. CLARK, Editor

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Advertising rates on request.

WELCOME HOME, DOCTOR!

Dr. Charles H. Herty is back again, after acting as a special representative of the United States Government on the Rhineland Commission for the purpose of securing for our dye consumers the supply of vat colors needed for the next six months. And in his report to the Washington Section of the American Chemical Society he has at least two extremely interesting things to tell us.

The first of these is that American consumers will begin to receive their first shipments of German vat dyes somewhere along about the first of the year, in ample time to meet the usual heavy spring and summer rush. This is far more important to the country than will be the mere value of the colors coming from overseas, for it will relieve the immediate pressing need for vat dyes for shirtings, and it will enable the Senate, when it comes to take up the Longworth bill, to see clearly just how little harm the licensing feature of the measure will cause to dye consumers. This single shining example alone should be almost sufficient evidence to secure the passage of the bill, and it is greatly to be rejoiced at that so effective an answer can be found, ready-made, to still the voices of those professional politicians whose axes are dull and whose ideas of ancestor worship would harmonize gracefully with those of the Chinese.

Quite as important, Dr. Herty tells us that despite the failure of Germany to win the war, and the heavy debts which that unhappy country now faces, particularly in view of the great drop in the value of German money, the dye industry so carefully nurtured for years along the banks of the Rhine is far from being extinct.

According to our latest and, we believe, best informant, plants have begun to run and are continuing to run at a steadily accelerated speed; men are available for work, and among the Germans there is a feeling of confidence that some day they can once again play the part in the world's dye affairs which they did prior to their fatal misstep. And the very fact that the German mark has greatly decreased in value will operate to the detriment of American manufacturers of dyes, should they be obliged to come into direct competition with the late Hun, while the latter, unless checked by the proper sort of a protective tariff, coupled with a licensing system, can charge extortionate prices for such dyes as we have not yet begun to make here—just such dyes as the distinguished Doctor was sent to get.

Practically all of this was known, or at least felt, before. But coming from a man whose influence is of the type exercised by Dr. Herty, it will be driven home more lastingly than ever before and in places where it will do more good than ever before. The dye industry is indeed to be congratulated that Dr. Herty has been able to return in time to take part in the campaign which must be waged from now on until the Senate is done with the Longworth bill. Even from the other side his influence was manifest through statements from him appearing from time to time in the daily papers. Back on the ground once more, and equipped with a first-hand knowledge of actual conditions in Germany which cannot be ignored or gainsaid, plus his oft-demonstrated ability to say the pertinent thing in a forceful, original way, he should prove a mighty power for good to the industry before we have heard the last of the forthcoming battle in the Senate.

Welcome home, Doctor!

DU PONT DYESTUFFS

A SELF-CONTAINED American dyestuft industry means, first of all, *protection* to America and American industries.

Protection to the nation in time of war in that it furnishes the plants, the technique and the intermediate products for the manufacture of high explosives and poisonous gases.

Protection to our one source of supply for the synthetic medicinals that are the chief reliance of medical science in relieving pain and in fighting disease.

Protection to the textile, leather, paper, printing ink, paint and other dyestuff consuming industries producing over two and a half billion dollars of manufactured goods a year, employing over one million people and representing upwards of two and one-half billion dollars in invested capital.

Protection to industries indirectly dependent on an uninterrupted supply of dyestuffs for their maintenance producing over three billion dollars of manufactured goods a year, employing over a million people and representing nearly two billion dollars in invested capital.

In developing and safeguarding, with every means at our disposal, a self-contained American dyestuff industry, American manufacturers are therefore laying and preserving the very keystone of our national and industrial independence.

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Dyestuffs Sales Dept.
Wilmington ∴ Delaware

Branch Offices
New York *Boston* *Providence*
Philadelphia *Chicago*
Charlotte, N. C.

THE BIOGRAPHY OF A BILL

(*Concluded from page* 8.)

or not I don't know—until permanent legislation on the subject may be passed."

The measure, as passed by both houses of Congress, follows:

"*Resolved, etc.*, That notwithstanding the prior termination of the present war, the provisions of the trading-with-the-enemy act approved October 6, 1917, and of any proclamation of the President, issued in pursuance thereof, which prohibit or control the importation into the United States of dyes or other products derived directly or indirectly from coal tar, are continued until January 15, 1920."

And in that form it is certain to carry out the obvious intent of its sponsors and to continue the present conditions of protection for the industry until the Longworth bill can be made a law.

PREPARATION OF INDICAN FROM INDIGO-YIELDING PLANTS

The fresh leaves are extracted with hot water to dissolve the indican, according to B. M. Amin in Indigo Publication No. 5 of the Agricultural Research Institute, Pusa, India. Amino-acids, tannins, gums, etc., are precipitated from the extract by addition of freshly slaked lime. The liquid, after filtration, is evaporated to a syrup, and the indican removed by extraction with acetone. The acetone is distilled off, leaving an aqueous solution from which indican hydrate separates on cooling in ice. The product is dissolved in absolute alcohol, and on addition of benzene pure anhydrous indican crystallizes out. This method can be applied to any species of plant, and gives a yield of 70-80 per cent. By this means pure indican has been prepared for the first time in large quantities from Java Indigo.

THE COLORING OF PULP AND PAPER

By Otto Kress
Paper Section, Forests Products Laboratory, Madison, Wis.

(*A Paper Presented at the Meeting of the American Pulp and Paper Mill Superintendents' Association.*)

(*Continued from last week.*)

Aniline Dyestuffs

With the discovery of mauve by William Perkin in 1856, while experimenting on the possible production of quinine, there originated the synthetic coal tar dyestuff industry. In so far as the paper industry is concerned, the aniline dyes are used almost exclusively for the tinting and dyeing of the pulp and paper.

The aniline dyes have the following decided advantages over pigments and natural dyestuffs: (1) Great tinctorial power. (2) Ease of application and uniformity of the product both in shade and strength so that the dyeing of the pulp or paper is very much simplified. (3) The dyestuffs now available cover every range of color and shade and can be chosen according to cost, tinctorial power, resistance to various factors, such as fading, alkali, alum, etc. (4) The aniline dyes do not decrease the

strength of the dyed sheet, as do pigments.

Nomenclature of Dyestuffs

The same dyestuff was often placed on the market by various manufacturers, each using his trade name to identify the dye. For example, the Vesuvines, Bismarck browns and Manchester browns were practically identical, but were sold under these various trade names. The Du Pont Company will place their acid dyes on the market under the trade name "Pontacyl," used as a prefix to the name of the dye. In similar manner the trade name "Pontamine" designates the substantive or direct cotton class of dyestuffs, "Ponsol" will be used as a designation for the vat dyes, and the basic dyes will have the trade name of Du Pont prefixed to the actual name of the dye. The National Aniline and Chemical Company has adopted the prefix Erie or Niagara to designate their direct cotton dyes. The examples given show clearly the importance of the consumer familiarizing himself with the various trade names adopted by different manufacturers for the same product.

Further, some confusion exists in regard to the letters or designations added to the dyestuff. As the manufacturing process involved in the production of dyestuffs becomes more standardized and intermediates are obtained in a purer and more concentrated form, it is possible to produce more concentrated brands. In general, the terms conc. or X, as for example, Victoria Blue BX or Victoria Blue B Conc. means that these products represent the stronger brands of the dyestuff. The letter R usually indicated reddish shade, G, yellowish, and B a bluish shade of the dyestuff.

Dyestuffs, with very few exceptions, are never placed on the market as 100 per cent pure dyestuff, but are always mixed with salt, Glaubers salt, soda ash or other diluent. This dilution cannot be considered as adulteration, as it is impossible to control the complex organic reactions involved in dye manufacture so as to obtain a 100 per cent yield of the dye. Each batch of dye as produced at the plant, therefore, varies in tinctorial strength and the dye plant, after careful testing, dilutes the charge with some diluent, such as salt (the choice of diluent depending on the particular dyestuff) in order to produce a standard brand of the particular dyestuff. Naturally, unscrupulous dealers occasionally adulterate with an excess of diluent, but the consumer, if at all experienced in dye testing, can readily determine such adulteration.

Many of the dyes on the market have admixed with them slight additions of other dyes used to shade the mixture to the desired standard shade. Other dyes are mixtures of two or more dyes, mixed for the purpose of producing a definite new color. Such mixtures or the addition of a shading dyestuff can readily be detected by blowing a small amount of the dye held on the tip of a knife blade onto a sheet of wet filter paper. Each individual dye in the mixture will dissolve to produce a differently colored

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A Color of Excellent Fastness to Fulling and Light. Suitable for Raw Stock, Yarn and Piece Dyeing

spot. In general it is desirable to avoid purchasing mixtures of aniline dyes as the tendency for variation in shades due to variation in specific gravity of the admixed dyes often cause a decided difference in color. By separation of the heavier and lighter dyestuffs (due to difference in specific gravity) the first and last sample drawn from a keg or barrel of dyestuff will sometimes show a variation in color. The average paper mill should not require more than a dozen standard colors for the production of all of the current shades and should, if possible, avoid the use of mixtures of dyestuffs.

Classification of Dyestuffs

Dyestuffs are not classified from the standpoint of practical application according to their chemical formula or derivation, but rather into large groups according to their general behavior. These divisions are:

1. Basic dyestuffs.
2. Acid dyestuffs.
3. Substantive dyestuffs.
4. Pigment dyestuffs and vat dyestuffs.

The basic dyestuffs appear on the market in the form of salts, such as the hydrochloride, acetate, oxalate, nitrate, double zinc salts, etc., of certain color bases. The basic dyes are characterized by great tinctorial power, but as a class are not fast to light. All basic colors can be mixed and dissolved together, but should not be mixed and dissolved with acid or substantive colors, as they would thereby be precipitated as color lakes and the color not only wasted but the precipitated dye would be apt to produce color spots on the finished paper. Basic dyes are very sensitive to hard water containing bicarbonates of lime or magnesium or any free alkali which tend to precipitate the free color base. This is often the source of color spots on the finished paper. Alkalinity of the water can be rectified by the addition of acetic acid. Solutions of basic dyes should not be boiled, and they are best dissolved at temperatures not to exceed 180 deg. Fahr. Auramine is particularly sensitive to heat, and therefore should not be dissolved at temperatures to exceed 160 deg. Fahr. When dissolving mixtures of dyestuffs, and especially with basic colors, care should be taken that all of the component colors are completely dissolved to avoid variations in shade. Further, it is good practice to strain the solutions through a fine sieve. The writer realizes that the majority of mills do not dissolve their dyes but sprinkle them into the beater in the dry state; better results, however, are obtained by dissolving the dyes.

Practically a complete line of basic colors of American manufacture is now available to the paper industry. Some basic colors have a tendency to mottle unbleached sulphite pulp in the dyeing of a mixed ground wood —sulphite furnish, either first dyeing the ground wood alone in the beater, then adding the sulphite, or adding

Fast Chrome Blue Black
Cloth Scarlet G **Naphthol Green B**
Bismark Brown R **Metanil Yellow**
Fast Purple B **Ponceau 3RB**
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the color in diluted form will overcome this trouble.

In general, acid colors appear on the market in the form of a salt of some color acid. The most characteristic property of acid dyes is that their tinctorial strength must be developed by acid, which in the coloring of pulp in the beater is accomplished by using a slight excess of alum. The acid colors, as a class, are of lower tinctorial strength than the basic colors, but are faster to light. Acid colors can be mixed with the substantive colors without the precipitation of a color lake occurring, but cannot be mixed with basic dyes. This class of colors, similar to basic colors, is in mill practice added in the dry form to the beater. Better results will be obtained if the dyestuffs are dissolved. Acid dyes are not very sensitive to heat and can be dissolved at a temperature a little below the boil. These colors are not particularly sensitive to alkalinity of the water, due to calcium or magnesium bicarbonate, but some colors are precipitated by dissolved calcium sulphate as the insoluble calcium salt of the color acid.

To increase fastness to light and to obtain deeper and more brilliant shades, pulp is sometimes dyed with a bottom of acid colors and topped with a basic dye to obtain a full shade. This color lake of acid and basic color produced makes a fuller dyeing than can be obtained by acid colors alone, and is cheaper than if acid colors were used; the dyed paper will be more light-resistant than if it were made from basic dyes. Practically the complete line of the pre-war acid colors suitable for the dyeing of paper is now available through the development of the American dyestuff industry.

The substantive or direct cotton dyes are salts of color acids which do not require acid (or in the paper industry, alum) to develop their tinctorial power. As a class, substantive colors are of lower tinctorial power than acid or basic colors, but those that find application in the paper industry are faster to light and other agencies than either of the other two classes. Substantive colors are somewhat sensitive to hard water, some of the colors being precipitated in the form of insoluble lime or magnesium salts. Substantive colors have the property of dyeing cellulose directly without the addition of any mordant or fixing agent. This class of colors is, therefore, largely used to dye unsized blotting and the colored stock as used in the manufacture of mottled papers. The substantive colors as a class are also remarkable in that they give practically colorless back waters, especially if the pulp is warmed in the beater preliminary to dyeing and if some salt is used to assist in the dyeing. Many of the more important direct cotton colors are now available to the paper trade.

The pigment and vat dyestuffs are synthetic organic dyestuffs, which,

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in so far as paper dyeing is concerned, are used in the form of insoluble pigments. These products as a rule, due to expense, are only used in the tinting of high-grade paper or for producing light-colored shades. The importance of these organic pigments lies in their great resistance to light and other chemical agencies. The pigment and vat dyes are not as yet available in commercial quantities, but the research and development work has been completed in so far at least as one American manufacturer is concerned, and plants are now building for producing some of these colors.

(To be concluded.)

GERMANS NOT YET READY, BUT HOPEFUL, 'TIS SAID

Herr Duisberg, general director of the "Elberfeld Farben fabriken" (Bayer), recently discussed the industrial conditions at a conference held at "Opladen," in the district of "Solingen." Among other observations he is reported to have stated that the conditions in industry were actually crushing, and the working expenses exceeded the receipts by a long way. In place of the profits hitherto shown, most of the balance sheets shortly to be published would show great deficits, since the cost of production was now six times greater than in peace-times. The cost to the dye industry for steam, for instance, was 22 marks per ton of the production, as compared with 2.70 marks before the war; and that for electrical energy was 25 pfennigs per kilowatt-hour, as contrasted with 3½ pfennigs formerly.

At present the coal mines produced more stone and dirt than coal, and as a consequence the ashes and clinker which had to be removed had risen from 15 per cent in September and October of last year to 40 per cent. Instead of working more in order to be able to pay for food products from abroad, the miners worked less; food products would also have to be imported next year, as the production of nitrogen had receded by one-half owing to the scarcity of coal.

The dye industry, the speaker proceeded to remark, only retained about 40 per cent of the production formerly carried on, as the remainder had been taken away by other countries. It was to be expected, however, that what the Germans had achieved by thirty years of work had not been imitated during the years of war. It was, for instance, "not so easy to copy the bright fast dyes for silks." Herr Duisberg expressed the opinion that German chemists would be able to open up new branches so that they would be able to regain the deficiency of 60 per cent in the production, and thus the dye materials industry did not appear to have so dark a future. It was necessary, however, for the workmen to exercise more intelli-

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gence, and not completely stop German competitive capabilities through constant wages assessments and strikes.

DEFECTS IN SILK

Dyed silk, as is only too well known, numerous and peculiar defects that are troublesome propositions to the silk manufacturer, knitter or other user. There may be cited in the line of skein silk such troubles as fuzziness of the yarn, which is due to either the fiber being cut while running through the guide-eyes in the throwing process; to the overworking in the dyeing; or to the lousiness of the raw silk. These are the most common causes. In most instances the fuzziness does not show up until after dyeing. The direct cause of this trouble can be determined by suitable tests. The most frequent cause is lousiness of the raw silk, resulting from a disease of the worm which spins its silk and deposits bunches along the fiber.

Unevenness of color can often be attributed to uneven weighting, uneven distribution of the dye, or variation in the size of the raw stock. There may be substances introduced into the silk which will not come off in the usual boiling-off or degumming process. If a piece of shady silk is submitted to a chemical test or analysis the percentage of dye, amount of weighting, and other substances can be determined and the cause of the defect will be apparent.

The throwster may use an excessive quantity of oil and soap, or even grease, which is fixed in variable proportions on the fiber in the dyeing process. This may often cause the dyer a great deal of trouble and cause streaked silk, either directly by not taking the dye evenly, or indirectly by causing overworking of the silk to obtain the desired shade. The oil, soap and grease present can be determined and the manufacturer should have his thrown silk inspected or analyzed before being sent to the dyer.

The writer knew of a case where raw silk that happened to be a fine large thread was found to be treated with rice powder to make it bulky, when in reality it was found to be a very slender fiber. An excess of fat may be present on the raw silk and not only cause trouble in subsequent operations, but cause the buyer to pay for this fat at the rate of silk. Some silk has been known to contain over 8 per cent of fat, as against the normal 1 per cent contained in the original fiber.

The percentage of ash from silk is of some consequence as it shows the amount of mineral matter present. If the percentage of ash is above the normal it shows that there is a mineral loading present. Nearly all the trouble encountered by manufacturers, dyers, finishers, and throwsters can be determined and the cause of the defect traced to its proper source. The manufacturer should protect himself by having all raw, thrown and dyed silk analyzed before accepting it as a good delivery.—*Textile World Journal.*

Coal-tar dyes valued at a total of $312,195 were imported at the port of New York during September.

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Dyestuffs Intermediates

PHARMACEUTICALS
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Victoria Blue B and Base
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Malachite Green Crystals
Auramine O and OO
Methylene Blue 2 B
Methyl Violet 4 B
Direct Fast Pink
Direct Fast Rose
Safranine Y S
Eosine B and G
Fuchsine

NOTES OF THE TRADE

The United Dyewood Corporation announces the declaration of a quarterly dividend of 1½ per cent on the common stock of this company, payable on January 2, 1920.

The Dow Chemical Company has declared a quarterly dividend of $1.75 on common stock, an extra dividend of $1.75 on common stock and a quarterly dividend of $1.75 on preferred stock. All these were payable November 15 to stockholders of record November 5.

With a capital of $200,000 the Marlinton Extract Dye & Chemical Company has been incorporated under the laws of West Virginia. The incorporators consist of C. A. Weagher, G. W. Hunley, Jr., and J. A. Dennison.

With a capital of $250,000 the Blackstone Textile Corporation has been chartered under the laws of New York to deal in textiles. Offices will be in New York City and the incorporators consist of E. R. Tiefenthal, H. F. Brussel and A. J. Hernsheim.

Bosson & Lane

Manufacturers

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Alizarine Assistant
Turkey Red Oil
Oleine Oil
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Monoline Oil
Castor Soap Oil

Works and Office, Atlantic, Mass.

R. Lechner Co., *Inc.*

Specialists in Dyestuffs, Dyewood Extracts, Etc.

110 East 23rd Street New York

With a capital of $100,000, the Waldorf Silk Mills., Inc., have been incorporated under the laws of New York to deal in textiles. Headquarters will be in Manhattan. The incorporators consist of A. Oppenheimer, M. H. Rosenbaum and A. Petz.

Following his resignation as research chemist and supervisor of the production of dyestuffs and intermediates for the C. Seigel Company, of Staten Island, N. Y., Allan J. Field has become associated with the Sherwin-Williams Company, in Chicago.

Announcement has been made to the trade by the Erie Dyeing Company, of Cleveland, Ohio, that the corporate name of this firm has been changed to the Erie Dyeing & Processing Company. The concern was recently incorporated under the latter name with a capital of $10,000.

The United States of America Cotton & Thread Exchange, Inc., has been chartered under the laws of New York to deal in thread, yarn and cotton goods. The capital is $100,000 and offices will be in Manhattan. The incorporators are C. Somberg, M. Wieder and B. Berger.

To deal in textiles the Atlas Textile Company, Inc., has been incorporated under the laws of New York with a capital of $75,000. Headquarters will be in New York City, and the incorporators include E. B. Hallett, John Bramwell and Isaac Lefkowitz.

The Fulton County Machinery and Supply Company, Inc., has been incorporated under the laws of New York with a capital of $150,000 to manufacture machinery and mill supplies. The works will be located in Gloversville and the incorporators are H. A. Steele, E. H. Van Valkenburgh and W. S. Becker.

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